AAIN Generative Artificial Intelligence Guidelines

Australian Academic Integrity Network (AAIN) Generative AI Working Group, March 2023

Introduction and background

Generative artificial intelligence (AI) is an AI model capable of generating text, images, code, video, and audio. Large Language Models (LLMs) such as ChatGPT and Copilot produce text from large datasets in response to text prompts. Recent advances in AI models and user interfaces, and the need for greater public understanding of AI (Selwyn & Gallo Cordoba, 2021), have prompted a need for shared guidelines to assist higher education providers manage the practical, ethical, and policy implications of AI models.

The benefits of generative AI to education include automatic generation of outlines and summaries, support for personalised learning, and writing feedback. Some challenges posed by using generative AI in higher education include:

- the authentication of individual attainment for accreditation purposes
- potential challenges to the principles of academic integrity
- the need for sustainable and adaptable responses to generative AI in learning, teaching and assessment and academic integrity policies and procedures
- support for staff and students in understanding and using the technology.

This document provides guidance on the appropriate use of generative AI in higher education aligned with the <u>Higher Education Standards Framework (Threshold Standards) 2021</u> (HESF). The HESF states that providers assure the quality of teaching, learning, research, and research training, with respect to content and skills developed, assessment and determination of learning outcomes, and the mitigation of foreseeable risks to academic and research integrity. Providers should document their decisions and monitor their progress in addressing generative AI.

Individual institutions are developing their own resources aligned to their specific contexts. A working group drawn from the Australian Academic Integrity Network (AAIN) (Appendix 1) has established this set of guidelines. The intention of the guidelines is to support existing and new guidance for students, teaching staff, professional staff, university administrators and decision-makers.

NB: These Guidelines are a snapshot in time, created by a working group of the AAIN. Any derivative guidelines need updating as the area of generative AI continues to change and develop.

Guidelines for students

- 1. According to <u>advice to students</u> from the Tertiary Education Quality and Standard Agency (TEQSA), 'it's important to understand that, depending on your university or college's policies, using AI as part of your studies may be restricted or banned. Alternatively, there might be subjects or tasks where the use of AI is encouraged or even required' (TEQSA, 2023a).
- 2. Students need to develop AI literacy skills, in addition to traditional information literacy skills (Bundy, 2004) and generic digital literacy skills. AI literacy skills enable 'individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace' (Long & Magerko, 2020:598).

VISIT...



- 3. Students should use AI models in ethical and responsible ways that are consistent with their institution's learning, assessment and academic integrity policies and procedures, and the terms of use of the AI providers.
- 4. Ethical use of generative AI includes an obligation to follow institutional guidelines regarding the use of generative AI in any unit or course, and an understanding that it may not be appropriate to use generative AI in all circumstances. Students should follow their institutional guidelines.
- 5. Students should check any output from generative AI against reliable sources of information and understand that they will be responsible for any errors or omissions in material generated by AI.
- 6. Students are required to identify AI models, tools and/or prompts that are appropriate for their discipline and acknowledge the use of AI in written assessments following any guidelines provided by their institution. If it is not possible to identify and cite the original sources used in output from AI, this may result in plagiarism and academic misconduct. Students also need to be aware of the possibility of "hallucinated references" or the tendency of generative AI language models to make up references from constituent parts of actual references.
- 7. Students should acknowledge the use of generative AI language models in assessment tasks, following any guidelines provided by their institution. They should describe the way they have used the tool and integrated the results into their work, as appropriate to the specific guidelines within their discipline, unit or course.
- 8. The unauthorised use of AI language models or paraphrasing tools may be a form of cheating and may result in academic misconduct. Work submitted (including work generated by AI), and not cited or referenced, must be your own original work.
- 9. Students need to be aware that using the output from AI models without appropriate acknowledgement may constitute academic misconduct. If unsure, students should confirm assessment requirements with teaching staff or seek advice on how to acknowledge the output from AI from academic support services, such as their library or other academic services.
- 10. Where appropriate, students should familiarise themselves with any relevant expectations of or constraints on the use of generative AI related to their future professional accreditation and be aware that these may be updated.

Guidelines for teaching staff

- All students will need to develop capabilities in the ethical use of generative AI relevant to their
 discipline and future professional practice through ethical engagement with generative AI tools
 in learning and teaching activities and assessment. Existing and likely future uses of AI in
 professional contexts and in platforms such as Microsoft Office and search engines need to be
 considered when developing unit or course learning outcomes, activities, and assessment.
- 2. Expectations regarding the appropriate use of generative AI in assessment tasks and learning activities should be consistent with institutional guidelines and require clear communication to students. This includes clear instructions in student facing documentation, for example, in learning guides and through the learning management system. Expectations should align with AI provider terms of use and with curriculum requirements.
- 3. To ensure procedural fairness, it is important to communicate to students any inappropriate uses of generative AI that may result in academic misconduct. Students should be aware of the potential for detection software (e.g., Turnitin) to detect generative AI use and that they are

- risking academic misconduct if using generative AI without appropriate acknowledgement by following the referencing guidelines provided by their institution.
- 4. Having conversations with students early in units and courses will improve a shared understanding of how and when they can use AI tools. Students will benefit from examples of how and when generative AI have been used and acknowledged, and which tools to use.
- 5. Students should be aware of the limits of generative AI. Limitations of generative AI include biased or negative responses due to interaction with a "raw model". Another limitation is the potential for "AI hallucinations" which results when the system provides a response that is not factual. This may be due to inadequate training of the model or the system's inability to interpret specific data. A further limitation is that of currency; the responses given by the generative AI model will only be as up to date as the information in its training data.
- 6. Students should have opportunities to develop AI literacy. Many providers will be developing tools and resources to assist students to learn to use generative AI in ways that are appropriate to their institutional context. Students should be aware of resources developed in their institution and across the sector. As an example, the University of Queensland Library Digital Essentials module is free to use and adapt under Creative Commons (with attribution).
- 7. Al tools may be used within institutional guidelines to support learning and assessment design, e.g., to generate assessments, feedback forms and exams. However, critical evaluation of generative Al output is required to ensure appropriateness against learning outcomes.
- 8. Unit and course learning outcomes, assessment tasks and marking criteria may require review to incorporate the ethical use of generative AI, or to indicate when not permitted, following any institutional expectations or guidelines. Any revisions should align with institutional requirements and any accreditation requirements.
- 9. In designing formative and summative assessment tasks, teaching staff should consider the capabilities of generative AI. For example, assessment tasks that award marks for summarising a topic area and online quizzes may no longer be useful measures of student achievement and new approaches may be required to promote creativity and originality.

Guidelines for academic support staff and misconduct teams

- 1. Library staff and academic/learning advisors support students to develop academic skills and academic integrity by:
 - a. promoting the ethical and responsible use of AI tools in academic writing and research
 - b. providing guidance on correct attribution and acknowledgement conventions to be used when incorporating generative AI outputs
 - c. providing advice and training to enable and enhance clients' effective use of AI tools
 - d. providing information and links to approved AI tools that are available to clients.
- Governance offices need to update and maintain policies and procedures to facilitate the
 investigation of potential academic misconduct. This includes but is not limited to ensuring
 definitions of types of misconduct are up to date and consider contemporary forms of
 misconduct and ensuring that policies are updated outside regular review cycles if needed
 (TEQSA, 2023b).
- 3. Training provided to staff investigating alleged misconduct to maintain current, relevant knowledge on changes in policies as well as trends in permitted use of AI tools.

4. Staff involved in processing academic misconduct relating to the inappropriate use of generative AI models need to consider how they might include early educative interventions in institutional policies and procedures, prior to imposing punitive measures.

Guidelines for higher education providers

- Policies and procedures should provide guidance on the ethical use of generative AI, accommodating diverse approaches across disciplines. Changes should be communicated to staff and students.
- 2. Generative AI policies and procedures should be treated as live documents, reviewed and updated regularly as the technology continues to shift and evolve.
- 3. Providers need to consider and address any ongoing resource demands associated with adapting to generative AI.
- 4. University administrators and managers should engage with external partners, such as community members, members of relevant professions and professional bodies and other partners, to facilitate open communication on research, teaching and other engagement with generative AI. Providers need to learn from and address partner concerns and mitigate potential risks including risks to institutional reputation.
- 5. All applications that are required for units and courses should made available by providers at no additional cost to students, to ensure equitable access.
- 6. Learning and teaching support units should develop, maintain, and update relevant professional learning resources to support academic staff in the use of generative AI in learning, teaching and assessment. These programs need to include implications of existing and future likely uses of AI in professional contexts for learning, teaching and assessment.

Glossary

Al hallucination is the result when a generative Al system provides a response that is not factual.

<u>Artificial intelligence (AI)</u> is 'the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings' (Copeland, 2023).

<u>Artificial intelligence literacy</u> is 'a set of competencies that enables individuals to critically evaluate Al technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace' (Long & Magerko, 2020, p.2).

<u>ChatGPT</u> (Generative Pre-trained Transformer) is a large language model developed by OpenAI, designed to engage in natural language conversations with users. It uses deep learning algorithms to understand and respond to a wide variety of questions and prompts in a conversational manner (OpenAI ChatGPT, personal communication, 9 March 2023).

<u>Hallucinated references</u> are fake references that are generated by generative AI language models, and that are made up of constituent parts (e.g., authors, journal titles, etc.) taken from actual references.

<u>Large Language Models (LLMs)</u> produce text from large datasets in response to text prompts.

References

- Bundy, A. (2004). Australian and New Zealand Information Literacy Framework: Principles, Standards and Practice (Second Edition). Australian and New Zealand Institute for Information Literacy (ANZIIL) and Council of Australian University Librarians (CAUL).
- Copeland, B.J. (2023). Artificial intelligence. In *Encyclopedia Britannica*, https://www.britannica.com/technology/artificial-intelligence
- Long, D. & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, Honolulu, Hi. USA. https://doi.org/10.1145/3313831.3376727
- Selwyn, N., Gallo Cordoba, B. (2021) Australian public understandings of artificial intelligence. *AI* & *Society*, 37, 1645–1662 (2022). https://doi.org/10.1007/s00146-021-01268-z
- TEQSA (28 Feb 2023a). *Artificial intelligence: advice for students*. Tertiary Education and Quality Standards Agency. https://www.teqsa.gov.au/students/artificial-intelligence-advice-students
- TEQSA (2023b). Sector update: Maintaining up to date academic integrity policies and procedures.

 Tertiary Education and Quality Standards Agency. https://www.teqsa.gov.au/sector-update-maintaining-academic-integrity-policies-and-procedures

© 2023 AAIN. Licensed under CC BY-NC-SA 4.0 Re-users may distribute, remix, adapt, and build upon the material in any medium or format, for non-commercial purposes only, with due acknowledgement of the source document.

Citation: AAIN Generative AI Working Group (2023) *AAIN Generative Artificial Intelligence Guidelines,* Australian Academic Integrity Network, https://doi.org/10.26187/sbwr-kq49

Appendix 1: AAIN Generative AI Working Group Members

Name	Institution
Albert Munoz	University of Wollongong
Ann Wilson	University of Technology Sydney
Bernardo Pereira Nunes	Australian National University
Christina Del Medico	Navitas
Christine Slade	The University of Queensland
Dawn Bennett	Bond University
Deborah Tyler	Victoria University
Elen Seymour	Western Sydney University
Glenda Hepplewhite	Alphacrucis University College
Holly Randell-Moon	Charles Sturt University
Janine Arantes	Victoria University
Jen McPherson	Western Sydney University
Jenny Game	Chisolm Institute
Jonathon Rhall	Monash University
Kali Myers	The University of Melbourne
Kate Absolum	Auckland University of Technology
Katherine Edmond	Kaplan Business School
Kris Nicholls	Torrens University
Lee Adam	University of Otago
Lee-Von Kim	Curtin University
Lesley Sefcik	Curtin University
Luke Whiteside	Eastern College Australia
Matthew Barber	University of Canterbury
May Kocatepe	Endeavour College of Natural Health
Michael Collins	Monash University
Nadia Koren	TAFE NSW
Nassima Kennedy	Polytechnic Institute Australia
Natalie Leitao	Sheridan Institute of Higher Education
Pat Loria	Western Sydney University
Paul Doornbusch	Collarts (Australian College of the Arts)
Rebecca White	The University of Auckland
Riley O'Keefe	Macquarie University
Sabiha Akhter	Torrens University
Sarah Keith	Macquarie University
Tomas Trescak	Western Sydney University
Zachariah Duke	Australian Catholic University